

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/791,891	03/04/2004	Keisuke Goto	01-578	4794
23400	7590 10/25/2005		EXAMINER	
	Z LAW GROUP, PLC CHAPMAN J		JR, JOHN E	
12040 SOUTH SUITE 101	I LAKES DRIVE		ART UNIT	PAPER NUMBER
RESTON, VA	A 20191		2856	
			DATE MAILED: 10/25/2003	5

Please find below and/or attached an Office communication concerning this application or proceeding.

				n
		Application No.	Applicant(s)	
		10/791,891	GOTO, KEISUKE	
	Office Action Summary	Examiner	Art Unit	
		John E. Chapman	2856	
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence address	
WHIC - Exter after - If NO - Failu Any (ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. In period for reply is specified above, the maximum statutory period or te to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).	
Status				
2a)⊠	Since this application is in condition for allowar	action is non-final. nce except for formal matters, pro		
	closed in accordance with the practice under E	x parte Quayle, 1955 C.D. 11, 45)3 O.G. 213.	
Dispositi	on of Claims		•	
5)□ 6)⊠ 7)⊠	Claim(s) <u>1-6</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdray Claim(s) is/are allowed. Claim(s) <u>1-4 and 6</u> is/are rejected. Claim(s) <u>5</u> is/are objected to. Claim(s) are subject to restriction and/or			
Applicati	on Papers			
10)	The specification is objected to by the Examine The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	epted or b) objected to by the I drawing(s) be held in abeyance. See ion is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).	
Priority u	ınder 35 U.S.C. § 119			
12)⊠ a)[Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority documents application from the International Bureau See the attached detailed Office action for a list	s have been received. s have been received in Applicati ity documents have been receive a (PCT Rule 17.2(a)).	on No ed in this National Stage	
2) Notic 3) Inform	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	(PTO-413) ate Patent Application (PTO-152)	

DETAILED ACTION

1. Claims 1-6 are objected to because of the following informalities:

In claim 1, line 1, "capacitive-type" should be changed to --capacitive--. While it is believed that one of ordinary skill in the art would understand what is claimed in light of the specification, there are instances in which the addition of the word "type" to an otherwise definite expression has been held to be indefinite. See MPEP 2173.05(b)(E). Accordingly, it is suggested that "capacitive-type" be changed to --capacitive-- in claim 1, line 1. Likewise for "capacitive-type" in line 1 of claims 2-5.

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear what it means for wirings to be "symmetrically formed with respect to wiring resistance" in line 13-14. Note that "symmetrically" is a geometrical concept, whereas "resistance" is an electrical concept. Note also that symmetrically formed wirings do not guarantee that the resistances are the same, nor do equalized resistances guarantee that the wirings are symmetrically formed. It is suggested that it be changed to --symmetrically formed with respect to each other to have substantially the same wiring resistance--.

Application/Control Number: 10/791,891 Page 3

Art Unit: 2856

4. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geen et al. in view of the admitted prior art.

Geen discloses a capacitive-type semiconductor sensor in Fig. 3 comprising a plurality of sensor chips 152a-152d formed on a semiconductor substrate, each of the sensor chips having fixed electrodes 160a-160d and 161a-161d and movable electrodes attached to inner frames 154a-154d, wherein a wiring interconnects the fixed electrodes 160a and 161b (col. 5, lines 44-64). A node is formed at approximately the midpoint of the wiring so as to interconnect the fixed electrodes 160a and 161b with fixed electrodes 160c and 161d. Accordingly, the only difference between the claimed invention and the prior are consists in providing a shared pad at the node in the wiring connecting fixed electrodes 160a and 161b. It is well known in the art to provide a pad in order to connect an electrode to circuitry, as taught by pads 5a-5c in Fig. 4 of the admitted prior art. It would have been obvious to one of ordinary skill in the art to provide a first pad at the node between fixed electrodes 160a and 161b for the purpose of connecting a wiring to the fixed electrodes 160c and 161d.

Regarding claim 3, sensor chips 152a and 152b are operable in reverse directions.

Regarding claim 4, it would have been obvious to one of ordinary skill in the art to provide a second pad at the node between fixed electrodes 160b and 161a for the purpose of connecting a wiring to the fixed electrodes 160d and 161c.

Regarding claim 6, sensor chips 152a and 152b are operable in reverse directions.

Application/Control Number: 10/791,891 Page 4

Art Unit: 2856

5. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

- 6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 7. Applicant's arguments filed September 16, 2005 have been fully considered but they are not persuasive. Applicant argues that the fails to teach or suggest "a shared pad connected to the fixed electrodes of the plurality of sensor chips and shared thereby." However, the Geen et al. reference teaches a plurality of wirings connected to fixed electrodes and interconnected at a node, and the use of a pad for interconnecting wirings is well known in the art, as evidence by pads 5a-5c in Fig. 4 of the admitted prior art. Accordingly, merely to place a shared pad at the common node in the Geen et al. reference would have been obvious to one of ordinary skill in the art for the purpose of interconnecting the wirings. Applicant further argues that Geen fails to teach or suggest the "the wirings are symmetrically formed with respect to wiring resistances from the shared pad to the fixed electrodes of the sensor chips." However, the wirings between the fixed electrodes 160a and 161b in Fig. 3 are symmetrically formed, and the wiring resistances from the fixed electrodes 160a and 161b to the common node would be substantially the same. Accordingly, the claims fail to distinguish in any unobvious manner over the prior art.

Application/Control Number: 10/791,891 Page 5

Art Unit: 2856

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOHN E. CHAPMAN PRIMARY EXAMINER